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JCS 4 U.S. PTO

09-11-00

A

Docket No. S101-DIV
Express Mail Label No. EL 516 676 702 US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Prior Application:
Examiner K. Truong
Art Unit 3731

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

This is a request for filing a:

divisional application pursuant to 37 CFR §1.60, of pending prior application:

JCS 36 U.S. PTO
09/658160
09/08/00

Serial No. 09/225,267 filed January 5, 1999,

by Robert J. Greenberg; Joseph H. Schulman

(inventor(s) currently of record in prior application)

for METHOD AND APPARATUS FOR INTRAOCULAR RETINAL TACK
INSERTER.

1. Enclosed is a copy of the prior application, including the oath or declaration as originally filed.

I hereby verify that the attached papers are a true copy of the prior application Serial No. 09/225,267 as originally filed January 5, 1999, and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

2. The filing fee is calculated below:

Claims as filed					
For	# Filed	# Allowed	# Extra	Rate	Fee
Total Claims	20	-20 =	0	x \$9.00	\$ 0
Indep. Claims	8	-3 =	5	x \$39.00	\$ 195.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$
Basic Small Entity Filing Fee Filing					\$ 345.00
Total Small Entity Filing Fee					\$ 540.00

3. The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Account No. **50-0922**. A copy of this sheet is enclosed.
4. Cancel in this application original claim(s) **1-12** of the prior application before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)
5. Amend the specification by inserting before the first line the sentence:
--This is a divisional of application Serial No. 09/225,267 filed January 5, 1999 .--
6. The prior application is assigned of record to: **Second Sight, LLC**
7. A new power of attorney in is enclosed
Arthur Freilich, Reg. No. 19,281
8. The statement(s) of Small Entity Status filed in the prior application is still proper.



Arthur Freilich, Reg. No. 19,281

9/5/00

Date

Second Sight, LLC
P.O. Box 905
Santa Clarita, CA 91380-9005
(661) 775-3995
(661) 775-1595 fax

Page

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY
STATUS (37 CFR 1.9(f) AND 1.27 (c)) - SMALL BUSINESS CONCERN**

Docket No.
A203-USA

Serial No.	Filing Date	Patent No.	Issue Date
09/225,267	Jan. 5, 1999		

Applicant/ **Robert J. Greenberg; Joseph H. Schulman,**
Patentee:

Invention: **METHOD AND APPARATUS FOR INTRAOCULAR RETINAL TACK INSERTER**

I hereby declare that I am:

- the owner of the small business concern identified below:
 an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF CONCERN: **SECOND SIGHT LLC**

ADDRESS OF CONCERN: **12744 San Fernando Road, Sylmar, CA 91342**

I hereby declare that the above-identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the above identified invention described in:

- the specification filed herewith with title as listed above.
 the application identified above.
 the patent identified above.

If the rights held by the above-identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed on the next page and no rights to the invention are held by any person, other than the inventor, who could not qualify as an independent inventor under 37 CFR 1.9(c) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

- no such person, concern or organization exists.
- each such person, concern or organization is listed below.

FULL NAME **SECOND SIGHT LLC**

ADDRESS **12744 San Fernando Road, Sylmar, CA 91342**

Individual Small Business Concern Nonprofit Organization

FULL NAME

ADDRESS

Individual Small Business Concern Nonprofit Organization

FULL NAME

ADDRESS

Individual Small Business Concern Nonprofit Organization

FULL NAME

ADDRESS

Individual Small Business Concern Nonprofit Organization

Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING:

Robert J. Greenberg

TITLE OF PERSON SIGNING

President

OTHER THAN OWNER:

President

ADDRESS OF PERSON SIGNING:

SECOND SIGHT LLC

12744 San Fernando Road

Sylmar, California 91342

SIGNATURE:

DATE:

2/3/99

METHOD AND APPARATUS FOR INTRAOCULAR RETINAL TACK INSERTER

5

BACKGROUND OF THE INVENTION

Field of the Invention

10 This invention relates to implanting retinal tacks using a piezoelectric driver. In another embodiment it relates to implanting a retinal implant with spike-like electrodes, using a piezoelectric driver. It also relates to the use of a remote impulse driver, connected to a tack in a tack-holder, by a hydraulic fluid. In another embodiment it relates to the use of a remote impulse driver, connected to a retinal implant with spike-
15 like electrodes in an implant-holder, by a hydraulic fluid.

The Prior Art

An example of a preexisting tool for implanting retinal tacks is Sinnett, U. S. Patent
20 No. 4,784,138; and No. 4,712,550. Actual laboratory experience with the Sinnett tool found that an apparatus like Sinnett's applied too much force to the retina. Consequently, this tool has a restricted functional ability to tack devices to the back of the eye.

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SUMMARY OF THE INVENTION

This invention is a method and apparatus for implanting retinal tacks. In one aspect of the invention, a tack suitable for insertion into the retina is driven into the retina by 5 the repeated minute blows from the rapid contractions and expansions of the piezoelectric crystal.

In another aspect of the invention, a single, short impulse is used to drive the tack home. With this mode of tack driving, a remotely placed driver couples its motion to the tack using an elongated tube filled with a suitable hydraulic fluid.

10 Similar method and apparatus is used for implanting a retinal implant having spike-like electrodes. In another aspect of the invention, a retinal implant with spike-like electrodes is driven into the retina (or other suitable tissue which can hold the implant) by the repeated minute blows from the rapid contractions and expansions of the piezoelectric crystal. The spiked electrodes may have a barbed point so as to facilitate 15 their remaining imbedded in the interior wall of the back of the eye.

In a different aspect of the invention, a single, short impulse is used to drive the retinal implant with spiked-electrodes home. With this mode of driving the spiked-electrode retinal implant, a remotely placed driver couples its motion to the implant using an elongated tube filled with a suitable hydraulic fluid. The spiked electrodes are 20 driven into tissue suitable to hold it in place. The spike electrodes may have a type of barb point on them so as to facilitate their remaining imbedded in the interior wall of the back of the eye. A plurality of spike electrodes may be dummy electrodes in that they function only as mechanical anchors, and do not function as electrodes. Thus, four corner dummy electrodes may anchor the retinal electrode element, which may even

have the rest of its electrodes shorter than the dummy electrodes or have the rest of the electrodes as flat electrodes.

BRIEF DESCRIPTION OF THE DRAWINGS

5

The above and other features and advantages of the invention will be more apparent from the following detailed description wherein:

Figure 1 shows a retinal tacker that uses an electronically driven piezoelectric crystal;

10 Figure 2 shows a retinal tacker that uses a remote impulse driver connected by a tube filled with hydraulic fluid;

Figure 3 shows a retinal implant tacker, for an implant with spiked electrodes, that uses an electronically driven piezoelectric crystal;

15 Figure 4 shows a retinal implant tacker, for an implant with spiked electrodes, which uses a remote impulse driver connected by a tube filled with hydraulic fluid;

Figure 5a shows a barb similar to a retinal tack for use with the spiked electrodes;

Figure 5b shows a barb similar to a fishhook for use with the spiked electrodes;

20 Figure 6a shows a plurality of dummy non-working electrodes that extend beyond the lengths of the electrodes and anchor the retinal electrode element to the back of the eyeball;

Figure 6b shows a plurality of dummy non-working electrodes that extend sufficiently beyond the relevant lengths of the electrodes which are proportioned to the curvature of the retinal and anchor the retinal electrode element to the back of the eyeball.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The following description is of the best mode presently contemplated for carrying
5 out the invention. This description is not to be taken in a limiting sense, but is merely
made for the purpose of describing the general principles of the invention. The scope
of the invention should be determined with reference to the claims.

This invention is a method and apparatus for implanting retinal tacks and into the
retina, as well as for doing the same for retinal implants with spike electrodes. Figure 1
10 shows a retinal tacker that uses a piezoelectric crystal (3) electrically driven by
electrical source (11), which may be a battery. The electrical or electronics unit (1) also
contains required resonant elements. The piezoelectric crystal undergoes a constriction-
relaxation cycle under the application of an alternating current via wires (2). Thus, the
piezoelectric crystal (3) is set into a vibrating motion that is mechanically coupled, by
15 the tack holder (5) to the retinal tack (6).

A mechanical system, (5) in Fig. 1 or Fig. 2, holds a retinal tack (6). The tack is
made from titanium or from a similarly sufficiently biologically non-reactive material.
The material used must be sufficiently non-reactive with the back of the eyeball (sclera)
where the tack is implanted, as well as the retina itself, and the vitreous humor fluid of
20 the eye.

The tack is inserted into the eye with the holder and placed against the retinal
surface. As shown, in Fig. 1, when the tack (6) is touching the retinal surface (9), the
electronic drive circuitry (1) is turned on which causes the piezoelectric crystal (3) to
vibrate. The vibrating crystal is mechanically coupled to the tack (6) and allows the

surgeon to insert the tack (6) into the retina (9) with less force. The vibrations allow the hard tack to enter the soft tissue of the retina instead of pushing it out of the way.

Advantageously, the vibrations make it easier to insert the tack into the sclera, since the relaxation time of the organic tissues is shorter for breaking and longer for bending.

- 5 Each vibration imparts a quick cutting effect to the leading point of the tack. Although each vibration is a short movement, the high rate of vibration results in effectively a longer, but individually for each vibration, a quick cutting action. The longer time comprises the sum of the individual forward vibration times and the non-forward part of the vibration stroke.

- 10 Figure 3 illustrates the piezo-electric driver (Figure 1) for a retinal tack (Figure 1, (6)) applied to the retinal implant (20) with spike electrodes (23). In this embodiment the head (21) of a retinal tack (5) is mounted on or near the center of the retinal implant (20). The holder (5) fits the head-of-tack fitting (21) and the operation is similar to driving a single tack. A plurality of arms (22) emanating and anchored to the holder (5) 15 act to steady the implantable electrode element (20). One embodiment of this invention uses four arms (22) to steady the four corners of a rectangular shaped back surface of the electrode element (20). In Figures 1,2,3 and 4, the electrode element (20) is shown with a curvature so as to conform to the curvature of the retina (9). However, the large number of spike electrodes (23) can require a larger voltage input into the piezo-electric 20 crystal so as to produce a proportionally larger force (approximately). In another aspect of the invention, a plurality of spike electrodes may be dummy electrodes in that they function only as mechanical anchors, and do not function as electrodes. Thus, four corner dummy electrodes may anchor the retinal electrode element, which may even

have the rest of its electrodes shorter than the dummy electrodes or have the rest of the electrodes as flat electrodes.

Figure 2 shows a retinal tacker that uses a piston (7) electrically driven by electrical source (11), which may be a battery. In this alternative embodiment, the electronic circuitry (12) is turned on causing a piston (7) to impact hydraulic fluid (10) in a thin tube (8). The sudden impulse of the piston (7) is transmitted to the tack (6) being held in its tack holder (5). This sudden impulse drives the tack (6) into the retinal wall (9). Advantageously, the sudden impulse is such that a large amount of force is transmitted in a very short time. Consequently the tack is forced into the desired organic tissue and 10 does not just push it back or bend it.

Figure 4 illustrates the hydraulic driver (Figure 2) for a retinal tack (Figure 2, (6)) applied to the retinal implant (20) with spike electrodes (23). In this embodiment the head (21) of a retinal tack (Figure 2, (6)) is mounted on or near the center of the retinal implant (20). The holder (5) fits the head-of-tack fitting (21) and the operation is 15 similar to driving a single tack (Figure 2, (6)). However, the large number of spike electrodes (23) can require either a larger voltage input into the piston driving circuitry or a larger fluid driving piston so as to produce an approximate proportionally larger force. A plurality of arms (22) emanating and anchored to the holder (5) act to steady the implantable electrode element (20). One embodiment of this invention uses four 20 arms (22) to steady the four corners of a rectangular shaped back surface of the electrode element (20). In Figures 1,2,3 and 4, the electrode element (20) is shown with a curvature so as to conform to the curvature of the retina (9).

Two types of barbs for the retinal element's spike electrodes are shown in Figure 5. Figure 5a shows a barb (51) similar to a retinal tack. The tack-type barb (51) is formed

as part of the spike electrode (52). Figure 5b shows a barb (53) similar to a fishhook barb. The fishhook-type barb (53) is formed as part of the retinal element's spike electrodes (52). The barb help the electrode stay anchored in the tissue in which it has been driven by one of the embodiments of this retinal tacker invention. A plurality of 5 spike electrodes may be dummy electrodes in that they function only as mechanical anchors (Figure 6a and b), and do not function as electrodes. Thus (Figure 6a), four corner dummy electrodes (611) may anchor the retinal electrode element (20), which may even have the rest of its electrodes (612) shorter than the dummy electrodes (611) or have the rest of the electrodes (Figure 6b) as retina matching curved envelope 10 electrodes (613). The head-of-tack fitting (21) is also shown with the retina (9).

The retinal tack or the spike electrode with its barb may attach a retinal electrode element in an epiretinal or subretinal position. It may attach other items and the retina as well as a retinal electrode element or other eye implantable element to the back of the interior of the eyeball, in any order, impaled on the tack or the barbed spike 15 electrode, dummy or real. The practical limitation is placed by the length of the tack or barbed spike electrode, real or dummy and by the holding power of the imbedded tack or barbed spike electrode, real or dummy.

While the invention herein disclosed has been described by means of specific 20 embodiments and applications thereof, numerous modifications and variations could be made thereto by those skilled in the art without departing from the scope of the invention set forth in the claims.

What is claimed is:

1. A method for implanting a retinal tack comprising the steps:
 - a. holding the retinal tack;
 - 5 b. applying a vibrating forward and back motion to the retinal tack;
 - c. forcing the tack into the retina and other materials to be secured and into the back of the eyeball;
 - d. forcing the tack into the back of the eyeball.
- 10 2. The method of claim 1 further comprising the step of originating the vibrating back and forth motion with a piezoelectric crystal.
- 15 3. A method for implanting a retinal tack comprising the steps:
 - a. holding the retinal tack;
 - b. applying a sudden force to the tack;
 - 20 c. forcing the tack into the retina and other materials to be secured and into the back of the eyeball, in any order;
 - d. forcing the tack into the back of the eyeball.
- 25 4. The method of claim 3 further comprising the step of originating the sudden force from a driven piston.
- 30 5. The method of claim 4 further comprising the step of imparting the piston's force directly to the tack.

6. The method of claim 4 further comprising the step of imparting the piston's force indirectly to the tack using a hydraulic fluid contained within a thin tube.

7. An apparatus for implanting a retinal tack comprising:

- 5 a. means for holding the retinal tack;
- b. means to vibrate the tack in a forward and back direction;
- c. means to force the tack into the retina and other material to be secured and into the interior back surface of the eyeball, in any order;
- d. forcing the tack into the back of the eyeball.

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8. The apparatus of claim 7 further comprising a piezoelectric crystal as a source of vibrating forward and back motion.

9. An apparatus for implanting a retinal tack comprising:

- 15 a. means for holding tack;
- b. means for applying a sudden force to the tack;
- c. means for forcing the tack into the retina and other materials to be secured to the interior back surface of the eyeball, in any order;
- d. forcing the tack into the back of the eyeball.

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10. The apparatus of claim 9 further comprising a driven piston that supplies the sudden force to the tack.

11. The apparatus of claim 9 further comprising the direct transfer of the piston's sudden force to the tack.

12. The apparatus as in claim 9 further comprising the indirect transfer of the 5 piston's sudden force using hydraulic fluid means.

13. A method for securing a retinal electrode element to the back of the eyeball comprising the steps:

- a. holding and steadyng the retinal electrode element;
- 10 b. applying a vibrating forward and back motion to the retinal electrode element;
- c. forcing the electrode element's spike electrodes, real or dummy and into materials to be secured to the back of the eyeball and into the retina, in any order;
- d. forcing the electrode element's spike electrodes, real or dummy, into the back of the eyeball.

15

14. The method of claim 13 further comprising the step of originating the vibrating back and forth motion with a piezoelectric crystal.

15. A method for securing a retinal electrode element to the back of the eyeball 20 comprising the steps:

- a. holding and steadyng the retinal electrode element;
- b. applying a sudden force to the retinal electrode element;
- c. forcing the electrode element's spike electrodes, real or dummy, into the retina and other materials to be secured to the back of the eyeball, in any order;

d. forcing the electrode element's spike electrodes, real or dummy, into the back of the eyeball.

16. The method of claim 15 further comprising the step of originating the sudden
5 force from a driven piston.

17. The method of claim 16 further comprising the step of imparting the piston's
force directly to the retinal electrode element.

10 18. The method of claim 16 further comprising the step of imparting the piston's
force indirectly to the retinal electrode element using a hydraulic fluid contained within
a thin tube.

15 19. An apparatus for securing a retinal electrode element to the back of the
eyeball comprising:
a. means for holding and steadyng the retinal electrode element;
b. means to vibrate the retinal electrode element in a forward and back direction;
c. means to force the retinal electrode element's spike electrodes, real or dummy
into the retina and into other material that is to be secured to the interior back surface of
20 the eyeball, in any order;
d. means to force the retinal electrode element's spike electrodes, real or dummy,
into the back of the eyeball.

20. The apparatus of claim 19 further comprising a piezoelectric crystal as a source of vibrating forward and back motion.

21. An apparatus for securing a retinal electrode element to the back of the
5 eyeball comprising:

- a. means for holding and steadyng the retinal electrode element;
- b. means for applying a sudden force to the retinal electrode element;
- c. means for forcing the forcing the retinal electrode element's spike electrodes, real or dummy, into the retina and into other materials that are to be secured to the
10 interior back surface of the eyeball, in any order;
- d. forcing the retinal electrode element's spike electrodes, real or dummy, into the back of the eyeball.

22. The apparatus of claim 21 further comprising a driven piston that supplies the
15 sudden force to the retinal electrode element.

23. The apparatus of claim 21 further comprising the direct transfer of the piston's sudden force to the retinal electrode element.

20 24. The apparatus as in claim 21 further comprising the indirect transfer of the piston's sudden force using hydraulic fluid means.

25. An apparatus comprising a barb means formed as part of the elongated spike electrode of the retinal electrode element so as to keep the electrode from pulling out of the living tissue in which it is implanted.

5 26. A method comprising the step of forming a barb on a plurality of the elongated spike electrodes of the retinal electrode element so that the electrode will tend to not pull out of the living tissue in which it is embedded.

10 27. An apparatus comprising a barb means formed as part of the elongated spike dummy non-working electrode to keep the dummy, non-working electrode from pulling out of the living tissue in which it is implanted.

15 28. The apparatus of claim 27 further comprising a plurality of dummy non-working electrodes that extend beyond the lengths of the electrodes and anchor the retinal electrode element to the back of the eyeball.

20 29. The apparatus of claim 27 further comprising a plurality of dummy non-working electrodes that extend sufficiently beyond the relevant lengths of the electrodes which are proportioned to the curvature of the retinal and anchor the retinal electrode element to the back of the eyeball.

30. An method comprising the step of forming a barb means as part of the elongated spiked dummy non-working electrode in order to keep the dummy, non-working electrode from pulling out of the living tissue in which it is implanted.

31. The method of claim 30 further comprising the step of forming a plurality of dummy non-working electrodes that extend beyond the lengths of the electrodes in order to anchor the retinal electrode element to the back of the eyeball.

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32. The method of claim 30 further comprising the step of forming a plurality of dummy non-working electrodes that extend sufficiently beyond the relevant lengths of the electrodes which are proportioned to the curvature of the retinal so as to anchor the retinal electrode element to the back of the eyeball.

10

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ABSTRACT

This invention is a method and apparatus for implanting retinal tacks and retinal electrode element with spiked electrodes. In one aspect of the invention, a tack suitable for insertion into the retina is driven into the retina by the repeated minute blows from the rapid contractions and expansions of the piezoelectric crystal. In a different aspect of the invention, a retinal electrode element with spiked electrodes suitable for insertion into the retina is driven into the retina by the repeated minute blows from the rapid contractions and expansions of the piezoelectric crystal. In another aspect of the invention, a single, short impulse is used to drive the tack home. In a different aspect of the invention, a single, short impulse is used to drive the retinal electrode element with spiked electrodes home. With this mode of tack and electrode element implanting, a remotely placed driver couples its motion to the tack using a thin, elongated tube filled with a suitable hydraulic fluid.

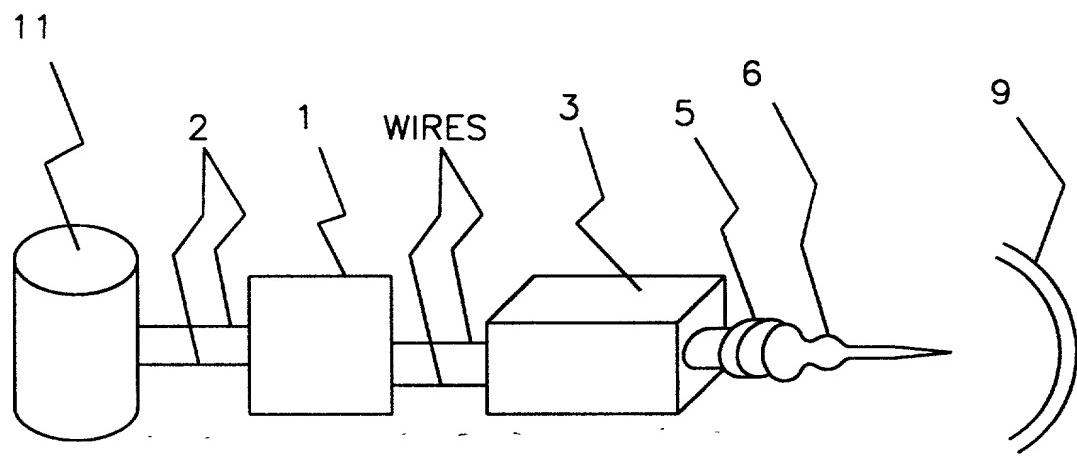


FIGURE 1

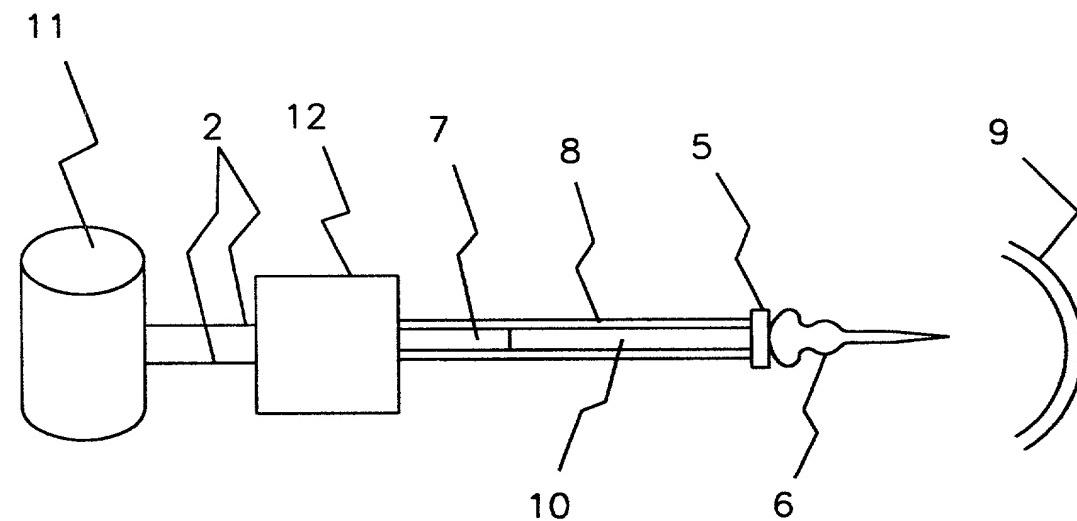
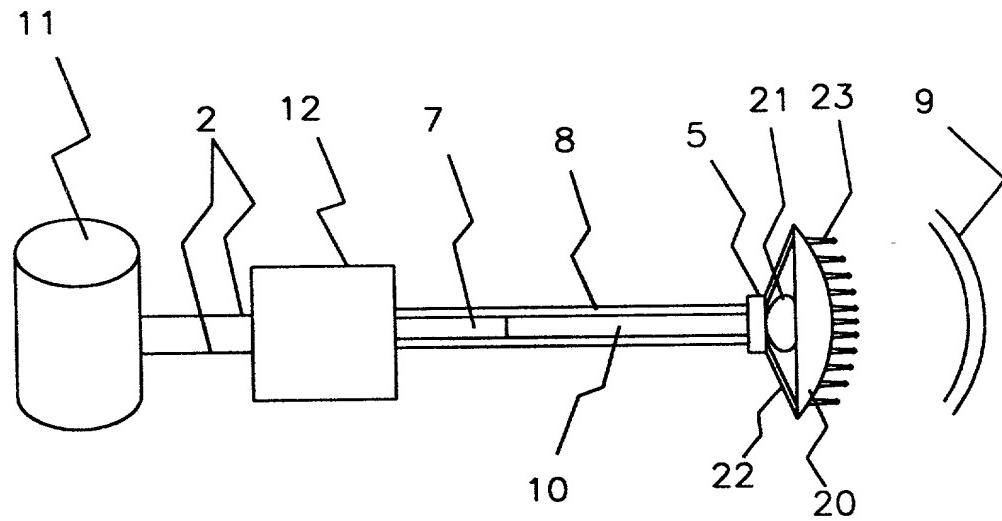
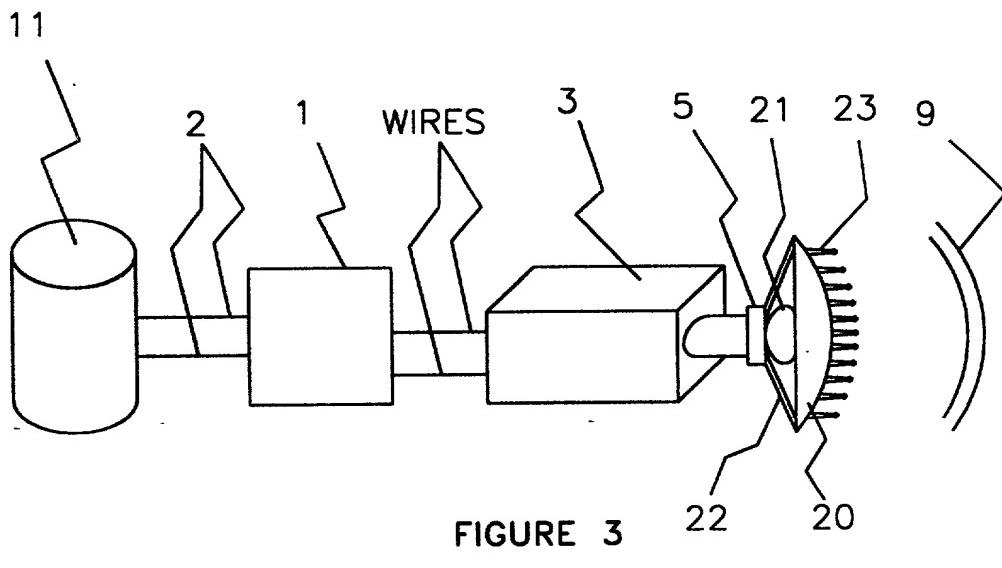


FIGURE 2



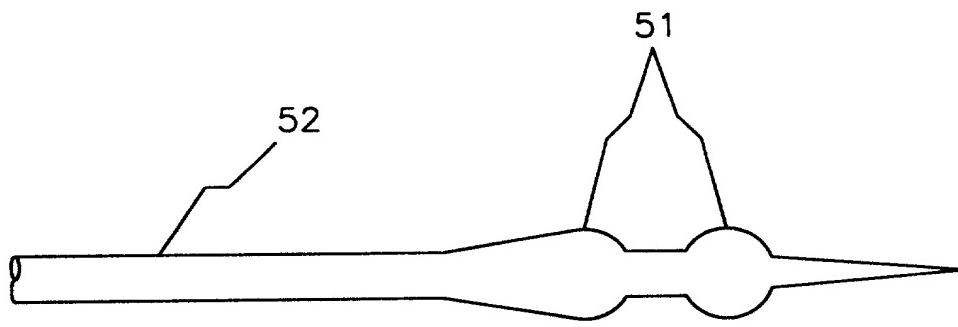


FIGURE 5a

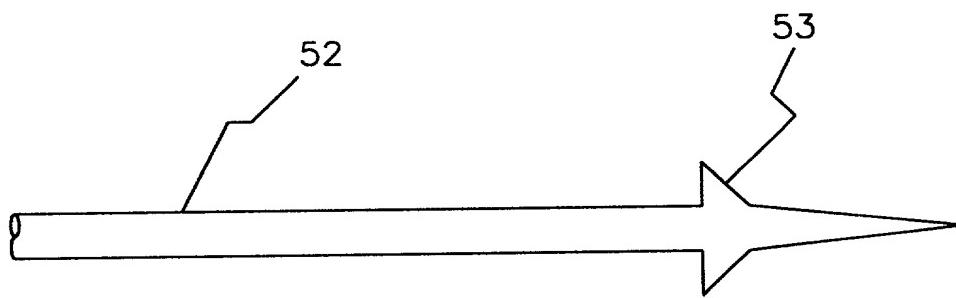


FIGURE 5b

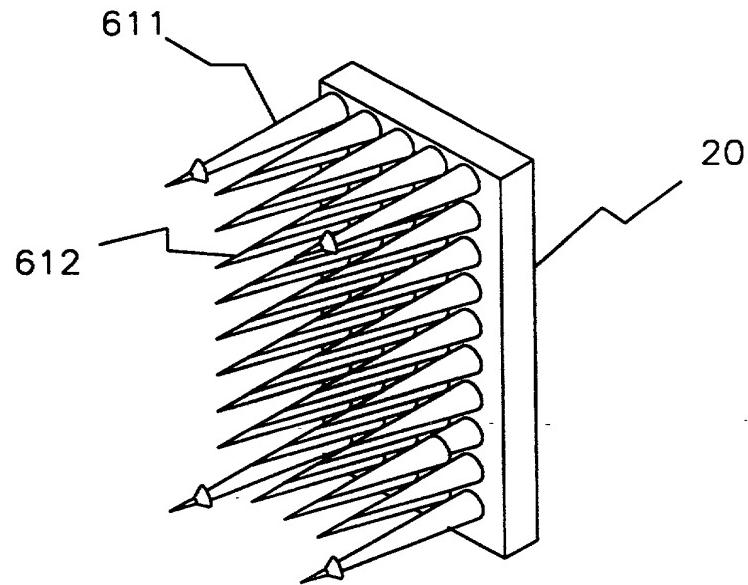


FIGURE 6a

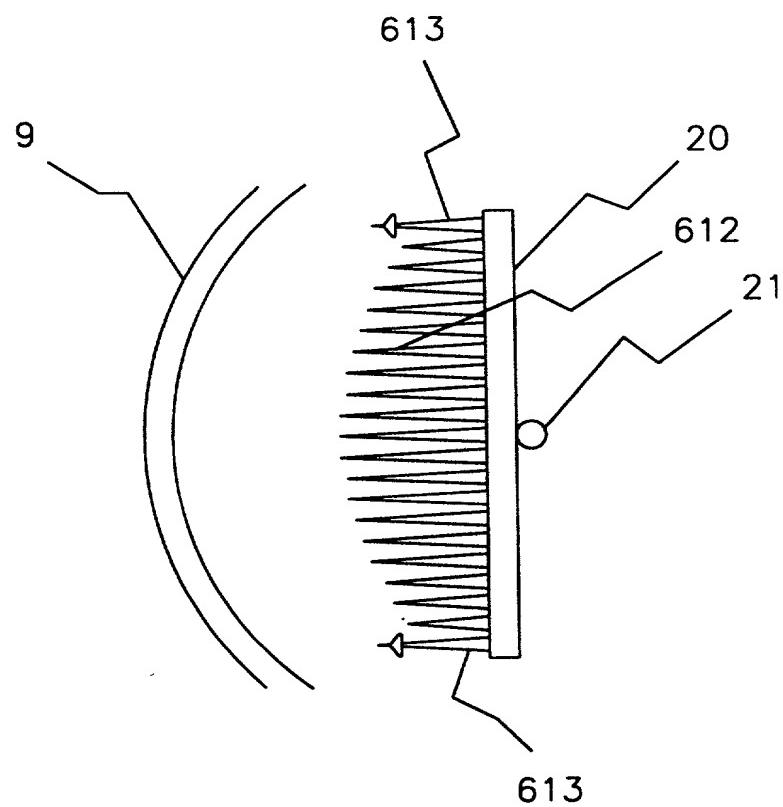


FIGURE 6b

Declaration and Power of Attorney For Patent Application

English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

METHOD AND APPARATUS FOR INTRAOCULAR RETINAL TACK INSERTER

the specification of which

(check one)

is attached hereto.

was filed on January 5, 1999 as United States Application No. or PCT International

Application Number 09/225,267

and was amended on _____

(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Not Claimed

(Number)	(Country)	(Day/Month/Year Filed)	<input type="checkbox"/>
(Number)	(Country)	(Day/Month/Year Filed)	<input type="checkbox"/>
(Number)	(Country)	(Day/Month/Year Filed)	<input type="checkbox"/>

I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

(Application Serial No.)	(Filing Date)
(Application Serial No.)	(Filing Date)
(Application Serial No.)	(Filing Date)

I hereby claim the benefit under 35 U. S. C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, C. F. R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)

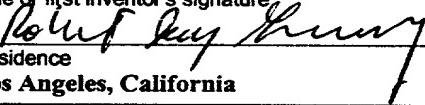
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

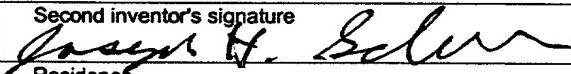
POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (*list name and registration number*)

Abraham N. Seidman, Reg. No. 41,300

Send Correspondence to: **Abraham N. Seidman
SECOND SIGHT LLC
12744 San Fernando Road
Sylmar, CA 91342**

Direct Telephone Calls to: (*name and telephone number*)
Abraham N. Seidman, (818) 362-8084 ext 2089

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

POWER OF ATTORNEY

Docket No.

S101-DIV

Name of Applicant: **Robert J. Greenberg, et al.**

Address of Applicant: **P.O. Box 905
Santa Clarita, California 91380-9005**

Title: **METHOD AND APPARATUS FOR INTRAOCULAR RETINAL TACK INSERTER**

Serial No., if Any:

Filed:

TO THE ASSISTANT COMMISSIONER FOR PATENTS

The Assistant Commissioner for Patents
Washington, D.C. 20231

Honorable Sir:

I hereby appoint:

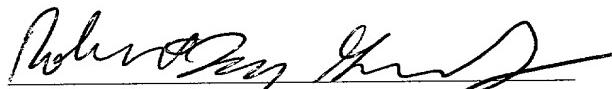
ARTHUR FREILICH, REG. NO. 19,281

as principal attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

Please direct all future correspondence to:

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By:



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President of Second Sight, LLC**

Dated:

9/1/00